

11.1-2
10
11.1-20

STUDENT

FILING COVER

To Bind Completed Matter



Course given by

SUBJECT:

For the

NATIONAL, SEPARATE-LEAF NOTEBOOK

Patented by E. W. Hill, July 5, 1898.

$$\begin{array}{r} 18.29 \\ 1.82 \\ \hline 20.9 \end{array}$$

Sta 1046 4 Feb 14

3.15 PM to 4.15 PM.

Off Trinity Shoal.

S. cloudy rising sea wind

11 1/2 fath = 209m.

blue mud. sample.

0 63.5° 68 -

20 #103 17.35 @ 18

Much dead water hyacinth

nets 3.25
20 min

20 net 0 Scanty diatoms

1/2 m net 0 Scanty pods ^{2 min} ryf.

bottom net ^{20 min} 20-0 ~~Scanty~~ Plankods
nothing else.

Shrimp trawl ^{4.15} 15 min

nothing barge bottom
two

$$\begin{array}{r} 7.3 \\ \underline{-} 9 \\ 82 \end{array}$$

10465

Feb. 15, 17

7.45 AM to AM.

N.W. fresh smooth pty cloudy
Calcareous bearing NW by W. miles
4 1/2 fath = 8 meters
mud. bottom.

Surface water muddy.

0 53.5 W S
m. 153

20 net 0 ^{25 min} thick diamers

1/2 m net 0 Split

~~Sted net~~ ^{newer, (red bag)} 0 good haul of spuds

Shrimp trawl 1/2 hr 27 shrimp

2 net haul 5 1/2 fath mud.

8.50 AM. light bearing N

1/2 hr. 16 shrimp

TT 10756
3 fath

10466 Feb. 15, 17

11.45 AM to 12.15 PM

S.E. of Sabine Pass

5 fath. sand. = 9 m. to 4 fath.

Surface 53 W.S.

Shrimp trawl - ¹²⁻⁴⁵
1/2 hour.

3 shrimp

3 cutlass

2 butterfish

1 Hog-choker

a lot. of anchovies

1 squid

10467

Feb. 16, '17

3.15 P.M. 4⁰⁵ P.M.

7 miles SW from Sabin Pass
Outer buoy.

S. cloudy light smooth

7 fath ~ 12.8 meters sand bottom
grey sand sand. Sample

0 54 W.S.

12 m. # 153 12.69 @ 12 W.S.

3:30 P.M. Towing very slowly.
20 net 0 25 min fairly abundant green
diatoms,
1/2 m net 0^{30 mm} Scanty food or. young fish

Shrimp travel. 30 min. slow.

25 shrimp ^{also} small + 8 tattered 15 anchovies
1 menhaden 1 small spade fish 1 hog-choker
8 small trout 12 small flounders 1 croaker

water very green, but fairly clear.

10,975
a1
~~889~~
H-8

10468

Feb. 17, 17

off Galveston Entrance

SSE Fresh. choppy clear.

6.15 Am to Am.

Whistle buoy bearing NNE about 3 miles.

6 1/2 fatho = 39 ft = 11.8 m.

gpm + 5 ^{shells} ~~wood~~ bottom. Sample

Shrimp trawl. 6.20 Am.
 $1/2$ hour

Surface temp 53.5°

31 large prawn

4 young shrimp

Feb. 26th Monday.

Left wharf at Galveston
2 P.M. water green with
little mud between jetties
Surf temp 64 inside

Temp at wharf.

Feb. 27th 52

"	18	52
"	19	56
"	20	55
"	21	56
"	22	56
"	23	60
"	24	61
"	25-	64
"	26	64

This is pretty fair record of
lower bay, as tides bring the
water by

104° 9' 3.3° Ph.
116° 26' 9.2° pm.
to .. 27

10469 A. Feb. 26th

33.5 P.M. to 9.05 P.M.
4 1/2 to 9 fathoms.

Partly cloudy $\frac{1}{2}$ clear. ~~W.E.~~ light
smooth.

4 1/2 fath. depth. Bottom Hard.
to 6 fath. spt. brown mud & fine sand

Surface temp. 65.5 Sample

Water green & fairly clear.

Shim. trawl 3.40 P.M. ~~shallow~~, 15 ft
40 min to fath. NW $\frac{1}{2}$ N.
see over 1

20 net 0 3.40 P.M.

25 min. fair haul micro.

20 net. 0 3.40 P.M.

many clathr., nothing much
else.

60 med. to large shrimp
5 small,

154 small stellifer

2 hog chokers

4 tongue & fin

4 cutlass

2 large & 2 small menticirrhus

47 small trout,

4 butterflyfish

1 small krohneis'

1 small squid.

B. 4.30 P.M. 6 1/2 fath mud

Shrimp trawl. 15 ft.

1 hour, to fath NW 1/4 W. stay 8 fath.

8 fath = 14 1/2 m. end. & B.

Surface, 65.5

14 m. # 153 15.82 @ 17 W.S.
 $\approx 60:5$

1/2 bucket fine large shrimp

1 bucket fish - see over,

Stellifer 279
Menticirrhus 12
Bairdiella ~~1~~
Trout 187
Brookings 13
Baffin 1
Harp. shaker 1
Butterfish ~~2~~

Tongue fish 2
Eelgrass 4
Diplostomus 6
Robin 1
Catfish 1
Gobies 4

C. 5:50 P.M. 8 fath. abv.
fettis bay, NW $\frac{1}{4}$ W. 1' bar
42 very large, 4 small sheet
1 black drum, $6\frac{1}{2}$ Kg. 77 cm.,
 $\frac{1}{3}$ bush. fish as follows. ~~200~~

Mullet 34 (b. ft) Sting ray 1
Trout 188
Whiting 15
Spot 3 large
Crabs 47
Cats 4
Squid 2
Stellifer 40
Tuna 1
Sight 1
Diplostomus 8
Pompano 1
Spade 1
Robin 3
Surfperch 3 ~~1~~
Baffin 1
Tongue 1

D. 7. P.M. I have to go. path.
Bolivar St WNW 1 in 9 fath, at end
hard mud bottom.

Large + many small shrimp

5 trout	1 different
4 cats	5 Myctophos (N.Y.)
2 white	8 small flounders (N.Y.)
4 croakers	1 small stingray
1 Baitfish	1 anch.
4 Spade-fish	
2 large Spot	
1 Gafftopsail	
1 pierfish	

E. 8.05 P.M. 9 fath hard mud.
I have

to Bolivar St. WNW $\frac{1}{4}$ W

2 large + many small shrimp

7 good sized white	1 robin	^{33 small} ^{4 numbers}
2 trout	5 bats	(8 tanques)
2 large spot	5 Myctophos	1 Myctophos
2 croakers	1 Brachybelid?	
3 spade	1 Spots (N.Y.)	
2 lizard	1 Stingray	

10469

F. Feb. 27th 1917

7 fath. mud. clear. S. fish
 sand bottom

12:45 AM.

Shrimpf trawl, 15 ft 1 hour.

5 large & many small shrimp	
110 Gob	8 small flounders
5 Croakers	6 Tanger fish
3 Spot	2 batfish
29 sticklers	5 mackerel
12 good whiting	1 sting ray
1 Sauries	1 Butterfly ray (14 ft)
4 Spades	
1 Orthopristis	
1 Robin	
1 Dimpotia	
2 Murphy cix	

Feb. 27th. 6 am. 3.

Ocean, clear, choppy

Surface temp. 64°

10 feet, wind., tacking N, Bolivia.
light breeze N by W. at start.

Shrimp trawl, 15 ft wide.
50 minutes.

8 small shrimps

1 shark, 63 in. ^{Scorpaena} (sand)

20 trout (another)

2 whiting

4 cutlass

3 lizard

1 Dophishum

2 Spades

1 Pintobtay

2 small flounders,

a few squid.

Length & wt. trout (mother)

18	cm.	113 gr.
19	"	55-
19	"	5-8
19	"	68
19	"	68
20	"	75-
22		100
23		103
24		184
20-		144
20-		180
27		212-

Whitney

23	-	130 gr.
24		170 ..

Feb. 27. H,
6 fath. sticky.

clear. calm, light chop.

8.20 Am. 9.20 ^{Surf} 64° Pm.

Galvez Hotel bearing, N. lower, NE
to 4 fath. " " NW $\frac{1}{2}$ N.

Shrimp net 15 ft 1 hour.

to 4 $\frac{1}{2}$ fath. Hotel W by N.

Many large jellies on surface. Water ^{clear} green.

31 large shrimp, no small ones

7 whiting,

3 murebades

1 Orthopristis

Many large
jelly fish

11 cuttans

6 trout

14 butterfly

1 small flounder.

2 Stellifer

1 Retia

1 pipe fish

I Hotel W. 4½ fath.

9.35 A.M. Town, E

1 hour. to fath NNW Hotel W
Ind & off sand.

54 medium to large shrimps

1 stingray.

1 chimaera

170 small ~~stellifer~~

65 trout

1 minkadeen

1 Orthopristis

2 Cutlass

1 Butter fish

2 Pipe fish (bait)

4 Whiting

3 Robins

1 very small *Doryclopsetta*

4 squid

many large pelicans

J

10.40 AM

settin NW By N Hotel W
to ~~idem~~ ~~111111~~ 1 hour

399 shrimp, 2 buckets, wt 12.25 Kg.
a few small fish, practically
the same as Haul I.

K. continued from J

11.45 AM.

12.45 PM. 7 1/2 fath.

1 1/3 bushels fine large shrimp
about 1 bucket of fish, mostly
trout + whiting. same as before

Note Bene. Sta 10469

Tin Tag 10757, 12 Menhaden
10758 1 Skate
57 1 Ray.

60-61 + 62 Cynoscion nebulosus

63 + 64 24 Menhaden

65 Cynoscion nebulosus

66 2 Menticirrhus

67 10 miscellaneous

68 5 Condors

69 12 Menhaden

70 9 Cynoscion nebulosus

71 6. mixed

L. continuous with R.

12.50 P.M. to 1.20 P.M.

7 1/2 fath. 7 1/2 fath.
1/2 hour.

31 large shrimps
a few small

3 Whiting

46 trout

5 Mephysis

1 Diplecther

13 Croakers

18 Stellifer

1 Laimus lept.

2 Spade

1 Small flounder

1 Rigger

a few squid

Mr. - went off fishing.

4 1/2 fath. dredgy

W. fishing beam, S.E.

3.10 P.M. 45 minutes,

Cod and came loose
while landing, all lost but 2
large black drum.

Quite a number of shrimp in
bag, also 3 more drum & some
large jetties. (Prob. 1 bucket shrimp).

Black drum, ^{Hard ♀} 8 1/2 cm. 7 3/4 Kilo

Ripe ♂ 88 cm. 9 1/4 Kilo
flesh full of large worms.

176

W. Feb. 27 4.25 pm.

3½ fath. Surface temp. 65°
Breeze South. Slight SW by W.
4.25 PM. ENC (about).
Home to Ap. 20 by S. 5 fath.
Wind. wind.

89 medium to large striped
the largest 20 to 21 cm.
1/2 bucket small fish as follows

Tuna	193	Cuttle	1
Skiff	20	Robin	1
Croaker	1	Moray	1
White	4	(Bonnet head)	1
Spade	1	Conger	
Harvest	3		
Tongue	2		
Croaker	1		
Am. Flounder	3		



O. Feb. 27.

6.20 P.M.

fath. WSW Bay, S. by W.
6 fath. sand. 1 hour.

234 large to medium sized
fish in basket, weighed 6 kg.

1/2 basket of fish, as follows

Butter fish	17	Robin	1
Bottom	1		
Small flounders	9	Chub	3
Whiting	14	Moray eel	2
Stellifer	23	Dolphin	2
Mackerel	9		
Murhead	12		
Croaker	5	Serial large yellow	
Trout	70		
Lizard	1		
Cuttin	3		
Tuna	14		

$$\begin{array}{r} 14.6 \\ \underline{+ 9} \\ 15.5 \end{array}$$

Sta 10470 Feb. 28

9.30 AM to AM:
P. 14^o Lat $29^{\circ}0'3''$ Long. $94^{\circ}26'$
~~not well~~
~~Heads, P. 14, macropodum~~

8 1/2 fath. ~ 15.5 m. ^{sand} water ~~shallow~~ bottom
S. choppy light clear. w.

0 62.5 ✓

15 m. #153. 16.66 @ 20 ✓

Water clear, greenish blue.

20 m. 0 7.45 ^{1/2 hr} ^{pink} Scanty ~~green~~

1/2 m. m. 0 9.15 " Very scanty

2nd " bottom to ^{9.00} " Very scanty

A Otter trawl. 10.20 min. 1/2 hr

Many small cutlassfish

16 small \bigcirc triggerfish

TT 10772 + 10773

Ran 5 miles N. to 9. fath.
Sand - sea over

1/1000
Haul B. 9 fath. yellow sand.
mean. to 12.30, 9 fath. blue sand & sand
2 bat-fish
2 small trout
2 stickleback

Lat $29^{\circ}10'$ Long. $94^{\circ}24'$

Haul C. Mich. 1^{1/2} 5.50 AM.

Heald bank lightship SE $\frac{1}{2}$ mile
Clear, small light S.
7 fath. sand & silt, 45 min.
going NE to 7 fath. 99 min.
depth 30-31 miles.
1 small orthopista

Point D. March 1

8 fm. 9 sand + gg marsh

1/2 hr. ENE.

1 long. sand drift } 10775

1 few small cuttlefish

shells

Point E

Surf line (6)

1.25 fm. (0) flat sand.

1/2 hr. 2 fm. fog. sand, 9³/₄ ft.
gg sand.

2 cuttlefish

F

10.40 fm. fog +

11¹/₂ fm. sand, rain.

1 red fish } 10.40 fm.
1 cuttlefish } fog + rain.

G. 2.25 P.M. Thick
fog. 14 fath mud + sand. $\frac{1}{2}$ hr.
Blue water surface 66° W.

20 Otrynter, ~~nothing else~~ $\frac{TT}{TT} 10776$

Color when alive $\frac{TT}{TT} 10777$

Silvery with bronze + purple
reflections. Largest ones with traces
of 3 darkish vertical bars, 1st from
1st Dorsal ^{spine} to 1st ^{anterior}, 2nd from
6th dorsal spine. 3rd very faint, from
10th dorsal spine.

Top of snout purplish

Intercorbital region + nape olive

~~Spinous dorsal~~ ~~line~~ with yellow ^{edged} membranes

Soft dorsal yellow at margin, 2 longitudinal
rows yellow spots, light blue spots between.
Distal edge caudal maroon, ~~line~~
edging salmon at tips of lobes

Anal with faint yellow band

Scales of back browned at edges, giving
the effect of stripes. Iris olive brown

$$\begin{array}{r} 18.2 \\ 16.4 \end{array} \overline{) 3474}$$

86

Sta 10471 March 1st

9.45 P.M. to 10.40 P.M.

W. light. cloudy choppy sea.

Sat. N. 28° 30' S. 91° 29'

19 fath. = 34 meters.

Bottom soft mud. W.S.

0 68.5° ✓

30 " 153. 18.30 0 19 ✓

20 1.6 10.0° P.M. Security wire
fads, sag. & 4 f.

1 m net 10 1/2 m Rich fads, sag. & 4 f.

Bottom mud 30-0 Rich mud 1 f.
35 mm

Outer bank Non capillary.

$$\begin{array}{r} 54.8 \\ - 9.1 \\ \hline 63.9 \end{array}$$

2.

Sta 10472. March 2, 17

7:30 AM to 9 AM.

No light coming above.

28° 02'. 74° 40'

35 fath. + 64. Meters ^{no} sample.
water very blue

0		69.5		✓
20	# 148	20.42	@ 20	✓
40	# 151	19.40	@ 20	✓
60	# 153	18.18	@ 20	✓

Many *Physochia*, very large,
nets 7:50 AM

20 m - 0 Rich mud gravel,
1/2 m and 0 Rich loam, pods - 1 cm
Meters out 55.0 Rich loam, pods, 9 ft open.
Other travel 4.30 m. 1/2 m.

4 Styrax 2 others
Jasmin 2 ^{second} square
1 Grand ^{old} ^{old} 1 ft.
Several beeches, 1 ft. 10774

$$\frac{125}{125}$$

$$\frac{125}{125}$$

Stn 10473 Wed 2, 17

11.15 Am. 1.15 P.M.

fair choppy choppy

77 fath = 140 meters.

Soft ground, no samples

0 71° WS.

20 119. 20.15 @ 19.

75 118 18.80 @ 19

100 151 17.85 @ 19

135 153 15.33 @ 19

Water not 11.15 warm fair choppy
wind 0 125.0 4 ft + gear

water 0 first 1/2 hr.

current 0 + 1/2 P.M.
fair choppy choppy

Otter travel 1/2 hr.

Travel faded - nothing but
traps.

10474 March 2, 1917

4:35 P.M. TO 6 P.M.

W.W. 100% full cloudy.
overboard.

70 1/2

405.

145

+5

20	153	20.40	20	✓
100	153	17.32	20	✓
200	149	12.70	18	✓
300	148	10.00	20	✓
400	151	8.62	20	✓
500	153	7.48	20	✓

water out 5:10 P.M. 45 min

Begin stopped, fuel & ton

1/2 in out 5:10 P.M. 45 min.

Rich foods

Port out 7:15 P.M.

1 larger, 3 smaller

3 mycthele

2 leftac

good condition

12.8
13.7

1416
9
T55

20	5.2
60	11.5
90	10.0
120	12.5
150	13.0
180	14.5

1

104755 March 3, 17

8.15 AM to 9.40 AM
Cloudy, ~~still~~ ^{NE} high
85-fath = 155 m.

0	69	W.S.
50	148 20.37 @ 19.	
75	133 19.84 @ 20	
100	149 15.90 18.95 @ 19 20	✓
125	148 16.90 @ 20	○
150	143 16.90 @ 20	✓

Sled net 150-0 ^{9 AM} ~~1/2 hr.~~, good haul
general, fads & 1 ft. (some afloat)

Ham net 9 AM ^{9 AM} ~~1/2 hr.~~, good haul gen
fads & 1 ft

10 net ^{9:05} AM an old patched
net, 10 m. & broken

Breezed up at close of the
station. Reaffed ^{11:00 AM} ~~main sail~~
10 AM. 12.30 PM. Wind increasing
~~to high storm sail~~

USE THIS IN THE BOOK
AS AN

►INDEX SHEET◄

To divide off the work
in different studies

— OR —

as a

FILING COVER

To bind, with the fasteners,
all work worth keeping for review.

For use in the

National Notebook

Patented by E. W. Hill, July 5, 1898.

SUBJECT OF STUDY:

To index the book, write below on the margin, the name of the study.



0476 March 5th

9:30 am to 10:30 am

off Ocean Ave. 6.9 m. light

7 to 6 fath. = meters

Haul. A. from out. buoy N 9:30 AM

Surface 16.6 m. 7 to 5 fath.

58

1/2 m. out 9:30 AM 1/2 hr.

Scanty sand bottom & fish eggs.

Shallow water 7:30. 45 min.

1/3 bush med. to large shrubs

1/3 n. fish.

Haul B. 11 AM 7 fath to 7 1/2
from buoy. ENE 40 min

TT for outstation

10778 - 10789

bottom of S. very broken. WSW

7 1/2 fath = 13.5 m. light " wby N

0

W.E.

13 m. #153 15.2" 15 1/2

Haul C. (evening B.)

11.55 A.M. 35 min to 9 fath.

Slight W by N.

10 min 10 fath. 10 fath.

15 min 10 fath. 10 fath.

Large, few small squid
much weed on bottom.

Used net 9 fath. 12.35 P.M.

4/2 hr. to 10 fath.

fair haul fath. say 9 fath.

Color of Pott's in haul B

Ground pale, flesh color.

4 rows markings of rich orange

Haul D. (evening B.)

12.35 P.M. Evening B.

Used net 9 fath. 1 hour.

2 large & 21 medium. Abund.

Some of catch
a few fish & squid all right

E. 7.10 P.M.

Cavalle St NNE 5 fath.
Wind SE by S. freshening
smooth sea, ^{to 8"} ~~smooth~~
towing E good sand. bottom,
1 hour

1 basket fine large shrimp.

1 " Steller

1 basket other fish, many left.

1 *Athosomus*

3 small bonnet heads

Several good whiting

But very few young food fish
in this haul.

beam

N.W. 5 fath ^{to 7 1/2}

F 8.10 P.M. 55 min.

got too rough to fish

smooth

Nearly a bushel large shrimp
1/2 bushel scallops
A few good fish, mostly whiting
A variety of stuff left

March 8th 1917

left Galveston 2.20 P.M.

Sta 10477. 6½ miles SSE from
south jetty. bearing NE ^{34° 20' west}
5.20 P.M. Surface 59.5°

Partly cloudy, ESE. smooth light.
Wave about WNW

1 bonito	5 spades
1/2 bushel large shrimp	2 bats
1/2 bushel <i>Stellifer</i>	1 Harvert
A few small trout	3 <i>Myrophysis</i>
1 mackerel	2 <i>Liparis</i>
1 <i>Brotula</i>	3 <i>Tangua</i>
2 <i>Spot</i>	2 <i>Citharus</i>
15 flatfish	a few small
8 whiting	squids
3 <i>carp</i>	
4 <i>shiny rays</i>	
1 <i>shark</i>	

10478 A Wed 9. 1.15 Am

Passed St NW. 10 fath. soft mud
Clear, smooth. SSE light
bright moonlight.

1.15 Am. turning, SSW 20°
1 hour, to 10 fath. soft mud.

Surface temp (at end) 59° WS

Bottom 4° WS 15.60 0015 WS

20 net 2.45 fm to 3.50 fm. Rich
10 m net " " " " fauna
small frags.

1 bucket Venus, many small shrimps

31 small flatfish

6 large, 74 small Vents

12 " 4 " white.

2 larger ~~2~~

8 sm crabs

2 dragon

156 Stelleria

2 bat

4 spade

1 Squid

5 Archigas

1 Harp

1 Shalt

2 ?

Ps. 3415-See
Cir. $11\frac{1}{2}$ by $1\frac{1}{2}$ W. $2\frac{1}{2}$ fath.
bearing N . . to light NW by
~~W~~ $6\frac{1}{2}$ fath. 1 hour ~~so short~~
Safford.

1 Bucket large shint =
185 large shint ^{charter}
1 $\frac{1}{2}$ Buckets fish, same as haul &
with the addition of a few
merlades.

light NW by N. 6 fath.

5 fm. down S.W.

to 3 fath. 1 fm.

2 bush. large shells

49 med. to large shrimp

$\frac{1}{2}$ bucket fish, same character
as last A, + 2 Bandills

D. 6.15 Am. from C.

S by W to 70 fms. and
S, S.W. from

1 bucket and to large drum
200 bucket not quite full.
1/4 bushel fish, same as A,
but no flatfish, and
10 sandlance.

E 2.41 N.

3 bushy, green buoy, 12 m.
W.E. to 5 fath. 14 m.

Light W. by S.

Very soft red sand.

6 medium shrubs

A few small white, + tan +

A few Stillife.

2 bushy large yellow.

F 11.05 a.m.

8 fm. to 10 fm. NE
Blue mud & fine sand
40 min. to 7 1/4 fath.

~~fish~~ ~~shrimp~~ ~~stickleback~~

1 1/2 buckets fine large shrimp.
1 bushel Stickleback
Very few other fish, inc a few
Menhaden.

fish E Breeze, Class.

Q. 12 m. (continues with F)

1 hour to 6 3/4 fath.

441 medium shrimp

1 bushel Stickleback

1 bushel big fish

Practically no other fish.

35 miles

7.30 to noon. $4. \frac{1}{2}$
 $4. \frac{1}{4}$

 8

8.75) 35.00 (4.
35.00

March 16th Left Galveston
7.30 A.M. Light SE air and
a little fog that cut down the
vessel speed under power very
considerably. 4.15 P.M. arrived
at Heald lightship and delivered
1100 lbs salt, + 2 barrels.

Speed of vessel exactly 4 miles
an hour for the 35 miles, and
that going with engine full
speed (at some half of tide, as log
registered 2 miles short.)

Sta 10479 next

tin tags = 10478

10790, Skates	96	1 apich
91, 12 menhaden	97,	85 small flag
92, 12 "	98	musel small
93, 12, miscall		stuff
94, 3 bretilids		
95, 9 menhaden		

(C. (51)

Sta 10419. March 16th

6:55 P.M.

9 fath sand, gravel & mud

11 miles SSW from Headlight

SE light, cloudy, high swell.

Surface temp 66°

Towing ENE Shrimp trawl

1 hour to 10 fath

3 buckets fish as follows

Orthopristis (spawning) 108

Trot, 7 others, 3 ripe ♂, 1 ripe ♀ 25m all

Spot, large 13. Anchovy 25

Croakers 1 Small flatfish 39

Otrynter 3 Brotulidae 3

Pinfish 7 Seiwards (2 sp) 3

Whiting 4 Sea cats 2

Dilection 11 Mophyces 3

Robins (2 sp) 9 Many small shrimps

Gurnards " 11 crabs & shells.

Puffers 2

Haul B, continuous
with A.
4.05 P.M.

After 10 minutes a Hauler
started in & stopped work for
the night.

Very little in this haul, added
to A.

TT (1047.9)

10799

10803

Sta 1048.0

TT 10806

10807

10480 March 20, 12.35 P.M.

SE stiff choppy pby cloudy.
Salvestor sea. long bearing.

W 1 1/2 miles.

Long ESE.

Surfacing.

Too rough for hauls.

Charted 15 ft.

1115 min.

Shant ~~110~~ ~~66~~ ~~80~~

360 ft.

25

44

Trawl

32

Chub

1111

Whiting

1151

halibut

2

80 large shant.

1 largest

94 Stiffener

1 feet high

32 trout

200 ft.

2 inches

7 C. m.

1 inch long

1. whiting

3 inches

2 hake

3 inches

Feb. 20.

Left Boston 11 Am
12.35 Pm made C. 104° E.
Stiff SE breeze enough chaffy
sea. cloudy, clearing later.
Set course for SW Pass.

Feb. 21st light SE breeze + smooth.
Sea, engine running all day 1. Pm
joined torpedoman boat. Found "lost"
Blue water all day. Much wind.

Feb. 22. Light SSE breeze, smooth
sea, clear. School of porpoises at
noon. 3 Pm many pelicans,
no sign of fish - trolling line over
water, nothing.

3 Pm Surface 70°

4 Pm 63° .

5 Pm 52° 47' 11. fm.

6 Pm 50° 11' 55°
100 fm. from bottom 1.16

Sta 10481 March 22
9:45 PM to 11 PM.

17 miles E from SW Pass village.
Smooth light clear SE
80 fath = 146 meters.

	63	W.S.
30	149 21.75 @	20
60	148 20.09 @	20
90	151 18.79 @	20
120	153 18.4 @	20

W.D.

Net 10:20 PM
18 net 0 1/2 h. rich mud & silt
1/2 m net 0 1/2 h. Rich 4 f + 9 cm.

Net 10:45 PM 5 sandy beds
4 f + 9 cm



10462 - March 23

4:30 Am. 17 miles E of St. Paul was ~~drift~~ ^{drift} trawl with 600 meter wire. Not net on the end.

5:40 Am set down with net like a messenger

6:45 hauled both.

SE clear light, calm.

(over about 500 fath)

Shrimp trawl 2 1/2 hrs. 500-0 m
large ~~shrimps~~ ^{shrimps} ~~shrimps~~ ^{shrimps}
~~shrimps~~ ^{shrimps} ~~shrimps~~ ^{shrimps}
+ 3 sp. red shrimp.

Water net 1 hr. 500-0 m.
C. caught general haul.

Set camera for ~~shrimps~~
for night hauls at
this place.

200.

520 fms. off Punta
Palo Colorado the wind not
strong. Started from the
latter at 11.30 P.M.
came to an anchor.

Feb. 28.
Left Punta de 1.30 P.M.

16. 10/17/20 ~~10/16/20~~

P.M. to P.M.

SSE light clear smooth.

After 2 days sun this.

From Pensacola outer bar
and A. from outer bar, Fly S.
4° P.M. 1/2th band.

Surface temp., 65.5. WS.
water full of steamfumes.

Striated 1/4 hour very clear
strong trout - strength not
no wind.

3 robins

2 lizards

1 Skate

2 few sand

2 long sand and eggs

2 few sand shells & 1 star

T.T. 10805 - 10810

54

13

55

much 29th clear light SE
wind all day. Under power
all day. Many fish seen and
considerable work. Took several
species of fish from the bottom.

100 fms. 11.00 1/17
light W. wind

5:30 P.M. to 7:30 P.M.

3' fall. 55 meters. ~~shallow~~
no sample.

Surface. 70° 11.5.

25 151 21.40 @ 17

50 153 20.21 @ 17

$\overline{39^{\circ} 00'}$ $85^{\circ} 21'$

Shaffer Area - no fish.

Shrimp trawl. 6 P.M., $\frac{1}{2}$ hr. slow.

1 flat fish. 0.50.

Net out 6:00-6:40 P.M. $\frac{1}{2}$ hr.

Scanty 1/2 \times 9 cm. $\frac{1}{2}$ hr.

$\frac{1}{2}$ hr net 0 6.40 in $\frac{1}{2}$ hr. (no fish)

Net out 6:40 P.M. $\frac{1}{2}$ hr.

18 net 0,

Scanty 0.

TT 10811

Stn 11455 March 30, 17

8 P.M. to 9.15 P.M.

clear, smooth light E

28°.05'

83°.575

20 fath. = 36 meters

sand bottom no sample

0 156.5 105.

17 151 19.37 2. 19 ✓

34. 153 18.55 0. 11 ✓

Shrimp trawl.

Metre net 2 1/2 ft. Swams 4 2 1/2 ft.
fisher picked out ~ 1/3 residue left.

1/2 m net 0 5.26, general
(reduced to 4.16) all left.

18 mtr 0 Scanty.

Mar 31st 9 Am.

Caught today, 1 *Syngnathus*
albifrons, TT 13812

♂, tail undamaged.

77 cm. wt 2130 grammes

Stomach, a few small fish

(kept)

in a school of flying fish.

Mar 31st 12 M. at 14
about 16 miles.

4 P.M. Spanish Mackerel

71 cm. ♂

Stomach undamaged

Stomach empty

April 1st Sunday, worked at
Boca Grande 6.30 A.M.

Went up to town & saw about
Shrimp etc. Dr. Atwood,
Fished for Shrimp in P.M.
3 traps caught nothing.
flats.

Apr. 2nd. Shrimp trials &
dinner in 3 P.M. Lab. in P.M.

Apr. 3rd. Left Boca Grande
6 A.M. 11 traps fishing in
P.M.

Sta 10486. Apr. 3rd.

Boca Grande river channel.

7 Am to . Am
fath = miles

Surface 74.5 ws.

Shrimp trawl 45 min.

Bottom fish - see below

16 net 1/2 hr.

Scatty, mostly minute
fish.

18 net. 1/2 hr.

Rich, minute fish.

188 small red-mouthed grunts

191 red mullet

TT 10813-10815



Aug. 3 6 P.M. Weather

Cloudy 100% chance rain

Wind 10-15

Sto 10487

Ap. 4.4 Am to

20 miles N^W San Diego, Cal.

Passage

11 fath. = 20 meters

- Surface 74

20 m # 151 23.80 @ 23

18 m at 4.35 Am $\frac{1}{2}$ hr

Fish Micro.

$\frac{1}{2}$ m. at 4.35 Am $\frac{1}{2}$ hr

One general haul

Shrimp trawl, 4 min to 40 min.

Net tows, 3 small flatfish

+ 1 tongue fish TT, 108 lb

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Port. (young) ♀

Total 146 cm.

Breadth of tail 34

Snout to D 67

" P 39

Height D 24

Base " 23

Length P 23

Base P. 9.

Beak to groove 9.5

" " gape 21

" " blow-hole 26

" " eye 2.5

Eye 2.5

Lower jaw to gape 21

Beak to vent 98.5

Length of vent 8

Depth at D 27

grey above, ~~white below~~, light below,
pectorals dark.

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